

SOUTHERN RANGE EXTENSION OF *AMELETUS CRYPTOSTIMULUS* (EPHEMEROPTERA: SIPHLONURIDAE)¹

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ABSTRACT: *Ameletus cryptostimulus* Carle, previously known only from western Virginia, is newly recorded from Macon County, North Carolina.

Ameletus cryptostimulus Carle has been known only from small streams at high elevations in Giles County, Virginia (Carle 1978). Here nymphs of *A. cryptostimulus* are reported from a small mountain stream in Macon County, North Carolina, although Traver's (1932) *Ameletus* sp. B from North Carolina almost surely was *A. cryptostimulus*.

The unnamed stream, located on the U.S. Geological 7.5 minute Highland map (35°5'N, 83°14'W), is spring-fed, and has an elevation ranging from 1036 m to 1049 m. Stream width is less than 1 m; water depths range from 0.7 cm to 5.9 cm annually. The stream flows through an oak-hickory-deciduous heath second growth forest, with numerous *Rhododendron* sp. shrubs dominating the stream bank vegetation. Soil composition of the hill slope is utisol ashe loam series. Topsoil is dark brown humus loam with a pH of 4.3 to 5.3.

A total of 48 *A. cryptostimulus* nymphs were collected from 408 Surber samples taken from 4 random sections of the stream. Collection dates and the number of *A. cryptostimulus* per square meter of stream-bed were as follows: 23-24 June 1980 (0.9), 13-14 August 1980 (0.2), 2-3 October 1980 (0.0), 29-30 December 1980 (3.3), 23-24 May 1981 (4.1), and 21-22 August 1981 (1.2). The largest nymphs (head width and total length) were collected during the two August time periods. The temporal pattern of the density data suggests a summer emergence period which differs from the April-May emergence observed by Carle (1978) in the western Virginia populations.

Nymphs of other Ephemeroptera collected with *A. cryptostimulus*, including their total numbers, from the 408 Surber samples were as follows: *Paraleptophlebia* sp.-596, *Stenonema meririvulatum* Carle and Lewis-485, *Habrophlebia vibrans* Needham-175, *Seratella sordida* (McDunnough)-119, and *Stenacron carolina* (Banks)-6. The relative rarity of *A. cryptostimulus* suggests that a casual collector would likely overlook it, which may explain its exclusion from previous species lists of

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the southern Appalachian Mountains. The similarity of the North Carolina habitat to the type-locality in Virginia (e.g. small stream at high elevation) indicates that other cryptic populations of *A. cryptostimulus* should exist at high elevations throughout the southern Appalachians.

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LITERATURE CITED

- Carle, F.L. 1978. A new species of *Ameletus* (Ephemeroptera: Siplonuridae) from western Virginia. *Ann. Entomol. Soc. Amer.* 71: 581-584.
Traver, J.R. 1932. Mayflies of North Carolina. *Elisha Mitchell Sci. Soc. J.* 47: 163-236.
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SOCIETY MEETING — NOVEMBER 4, 1982

The American Entomological Society's second regular meeting of the 1982-83 year was held Thursday, November 4 at the Academy of Natural Sciences of Philadelphia. Ten members and four guests attended. The speaker for the evening was Dr. Dennis Joslyn, Assistant Professor of Zoology at the Camden Campus of Rutgers State University. Dr. Joslyn spoke on "Autocidal Control of Salt Marsh Mosquitoes."

Of the approximately 60 species of mosquitos that are known from New Jersey, the salt marsh mosquito, *Aedes sollicitans* is the most abundant. Since it is a major pest species and a vector for eastern equine encephalitis virus, controlling its' populations is important. Dr. Joslyn is interested in developing a genetic strategy to complement current pest management practices.

With a diploid chromosome number of six, the genetics of mosquitoes is potentially simpler than that of *Drosophila*. An effective laboratory selection procedure carried out in Florida on the Central American species, *Anopheles albimanus*, has yielded a strain with defined chromosomal translocations and inversions in which only males were resistant to Propoxur. Analogous genetic manipulations of the salt marsh mosquito should be possible. Such a strain could be mass cultured to yield males that could be released in the wild after sterilization. Matings between these males and the wild monogamous females would result in nonviable offspring. A lively discussion followed Dr. Joslyn's talk.

On notes of local entomological interest, Dr. William Day mentioned that alfalfa plant bugs, *Adelphocoris lineolatus*, found in the fall, may be so darkly colored that field identification can be difficult. He suggested that the dark coloration was probably an adaptation to absorb more heat. Drs. Ronald Romig and Charles Mason reported on their attempts to trace the spread of *Lydella thompsoni* into southeastern Pennsylvania. *Lydella* is an introduced parasite of the European corn borer.

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